(19) World Intellectual Property Organization

International Bureau



| 1000 F10100 IV 0010 1010 1010 6010 6010 6010 1010 1110 1010 1010 1010 1010 1010 1010 1010 1010 1010 1010 101

(43) International Publication Date 28 April 2005 (28.04.2005)

PCT

(10) International Publication Number WO 2005/038967 A1

(51) International Patent Classification⁷: 8/18, 8/08, 4/88, C01B 3/00

H01M 4/86,

(21) International Application Number:

PCT/NO2004/000321

(22) International Filing Date: 21 October 2004 (21.10.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 2003 4702

21 October 2003 (21.10.2003) NO

- (71) Applicant (for all designated States except US): RE-VOLT TECHNOLOGY AS [NO/NO]; Innovasjonssenter Gløshaugen, Richard Birkelandsvei 2b, N-7491 Trondheim (NO).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): BURCHARDT, Trygve [NO/NO]; Skyåsveien 70, N-7045 Trondheim (NO).
- (74) Agent: BRYN AARFLOT AS; P.O. Box 449, Sentrum, N-0104 Oslo (NO).

- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

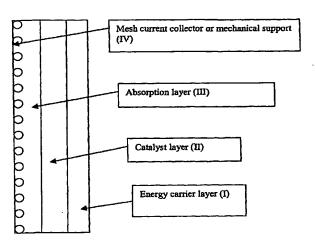
Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: ELECTRODE, METHOD OF ITS PRODUCTION, METAL-AIR FUEL CELL AND METAL HYDRIDE CELL

Figure 1. Illustration of a possible assembly method for the electrode by the use of several sheets with different properties.



(57) Abstract: The invention described concerns an anode electrode comprising a hydrogen storage material/alloy and a high energy density metal. In addition a hydrogen electrocatalyst may be added to increase the hydrogen reaction rate. The high energy density metal is selected from a group consisting of Al, Zn, Mg and Fe, or from a combination of these metals. A method of production of an electrode comprising a hydrogen storage alloy and a high energy density metal is also described. The method comprises sintering or binding a high energy density metal powder and/or hydrogen storage alloy into at least one thin street, and calendaring or pressing said sheet forming the electrode. The anode electrode may be used in metal hydride batteries and metal air fuel cells.

